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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,313	03/30/2000	Chung-Ho Huang	LAM1P136/P0602	7930

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EXAMINER	
ENGLAND, DAVID E	
ART UNIT	**PAPER NUMBER**
2143	12

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/539,313	HUANG ET AL.	
	Examiner	Art Unit	
	David E. England	2143	

-- Th MAILING DATE of this communication appears on the cover sheet with th correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 9 are presented for examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kail (6225901) in view of Nakamura et al. (6233492) (hereinafter Nakamura).

3. As per claim 1, Kail teaches a computer implemented method for communicating between a computing system of a process module, and a first sensor, comprising the steps of:

4. initializing the computing system of the process module, (e.g. col. 6, line 49 – col. 7, line 20);

5. transmitting a connect message from the first sensor to the computing system of the process module, (e.g. col. 6, line 49 – col. 7, line 20);

6. transmitting a command to get reportable specification from the computing system of the process module to the first sensor, (e.g. col. 6, line 49 – col. 7, line 59 & col. 7, line 60 – col. 8, line 57); and

7. transmitting a reportable specification message from the first sensor to the computing system of the process module, (e.g. col. 7, line 21 – col. 8, line 28 & col. 7, line 60 – col. 8, line 57). Kail does not teach the process module having a process chamber, initializing the first sensor, which is able to measure a first parameter in the process chamber. Nakamura teaches the process module having a process chamber, initializing the first sensor, which is able to measure a first parameter in the process chamber, (e.g. col. 3, line 35 – col. 4, line 67). It would be obvious to one skilled in the art at the time the invention was made to combine Nakamura with Kail because it would be more efficient for the computing system to utilize a network type connection so the user can operate the sensor and process chamber form different locations in a building.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kail (6225901) in view of Nakamura (6233492) in further view of Steen, III et al. (6510350) (hereinafter Steen) in further view of Kosugi et al. (6204768) (hereinafter Kosugi).

9. As per claim 2, Kail and Nakamura do not specifically teach spawning within the computing system of the process module a connection monitor task;

10. spawning from the connection monitor task within the computing system of the process module a first sensor messaging task;

11. transmitting an acknowledgement of the command to get reportable specification from the first sensor to the computing system of the process module; and

12. transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor. Steen teaches spawning within the

computing system of the process module a connection monitor task, (e.g. col. 11, line 4 – col. 12, line 21);

13. spawning from the connection monitor task within the computing system of the process module a first sensor messaging task, (e.g. col. 11, line 60 – col. 12, line 56);

14. transmitting an acknowledgement of the command to get reportable specification from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Steen with the combine system of Kail and Nakamura because

15. Steen does not specifically teach transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor. Kosugi teaches transmitting an acknowledgement of the reportable specification message from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48 & col. 9, lines 18 – 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with the combine system of Kail and Nakamura because it would be more efficient for a system to utilize the properties of an acknowledgement signal so in case of a bad transmission the sensor would know that the computing system did or did not get the signal and to retransmit the signal.

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kail (6225901) in view of Nakamura (6233492) in further view of Steen (6510350) in further view of Kosugi (6204768) in further view of Sandelman et al. (6535123) (hereinafter Sandelman).

17. As per claim 3, Kail and Nadamura do not specifically teach transmitting command to get an alarm table command from the first sensor to the computing system of the process module;

18. transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor;

19. transmitting an alarm table from the computing system of the process module to the first sensor; and

20. transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module. Sandelman teaches the use of routing tables and router that are connected to sensor and other networking devices that could be interpreted as transmitting command to get an alarm table command from the first sensor to the computing system of the process module, (e.g. col. 3, lines 20 – 65 & col. 8, line 53 – col. 9, line 15);

21. transmitting an alarm table from the computing system of the process module to the first sensor, (e.g. col. 3, lines 20 – 65 & col. 8, line 53 – col. 9, line 15). It would be obvious to one skilled in the art at the time the invention was made to combine Sandelman with the combine system of Kail and Nakamura because it is common knowledge that when a new router is installed and turned on, it requests from other networking devices a routing table so to update its table and route information so to act as an interface to at least one of the sensors that would be connected to it.

22. Sandelman does not specifically teach transmitting an acknowledgement of the command to get the alarm table from the computing system of the process module to the first sensor;

23. transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module. Kosugi teaches transmitting an acknowledgement of

the command to get the alarm table from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48), and Steen teaches transmitting an acknowledgement of the alarm table from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi and Steen with the combine system of Kail, Nakamura and Sandelman because if the computing system and the first sensor could not acknowledge each others transmissions the system could accumulate transmission errors and improper updating of the measurements that the sensor detects.

24. Claims 4 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kail (6225901) in view of Nakamura (6233492) in further view of Steen (6510350) in further view of Kosugi (6204768) in further view of Sandelman (6535123) in further view of Halpern (5301122).

25. As per claim 4, Kail, Nakamura and Sandelman do not specifically teach transmitting command to get time and initialization data from the first sensor to the computing system of the process module;

26. transmitting time and initialization data from the computing system of the process module to the first sensor. Halpern teaches transmitting command to get time and initialization data from the first sensor to the computing system of the process module, (e.g. col. col. 11, lines 13 – 49);

27. transmitting time and initialization data from the computing system of the process module to the first sensor, (e.g. col. col. 11, lines 13 – 49). It would be obvious to one skilled in the art at the time the invention was made to combine Halpern with the combine system of Kail, Nakamura and Sandelman because of similar reasons stated above and it would be more efficient in the updating process to have time and initialization data so when the computing system does attempt to update its information the computing system can compare the two different times and initialization data and to determine which ones are the latest versions of information to save.

28. Halpern does not specifically teach transmitting an acknowledgement of the command to get time and initialization data from the computing system of the process module to the first sensor;

29. transmitting an acknowledgement of the time and initialization data from the first sensor to the computing system of the process module. Kosugi teaches transmitting an acknowledgement of the command to get time and initialization data from the computing system of the process module to the first sensor, (e.g. col. 8, lines 28 – 48), and Steen teaches transmitting an acknowledgement of the time and initialization data from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi and Steen with the combine system of Kail, Nakamura, Sandelman and Halpern because of similar reasons as stated above.

30. As per claim 5, Kail, Kosugi, Sandelman and Halpern do not specifically teach transmitting a process related command related to the execution of an action in the process chamber from the computing system of the process module to the first sensor;

31. executing the action in the process chamber, wherein said action relates to the processing of semiconductor related devices; and

32. transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module. Nakamura teaches transmitting a process related command related to the execution of an action in the process chamber from the computing system of the process module to the first sensor, (e.g. col. 3, line 35 – col. 4, line 67);

33. executing the action in the process chamber, wherein said action relates to the processing of semiconductor related devices, (e.g. col. 3, line 35 – col. 4, line 67). It would be obvious to one skilled in the art at the time the invention was made to combine Nakamura with the combine system of Kail, Kosugi, Sandelman and Halpern because it would be more efficient for a system to remotely have the ability to execute a process to different semiconductor related devices as opposed to having one computer for every one process chamber.

34. Nakamura does not specifically teach transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module. Steen teaches transmitting an acknowledgement of the process related command from the first sensor to the computing system of the process module, (e.g. col. 9, line 63 – col. 10, line 29). It would be obvious to one skilled in the art at the time the invention was made to combine Steen with the combine system of Kail, Nakamura, Kosugi, Sandelman and Halpern because of similar reasons as stated above.

35. Claims 6 – 9 are rejected for similar reasons as stated above. Furthermore, in reference to a second and third sensor, Kosugi teaches a second and a third sensor, (e.g. col. 6, lines 3 – 33 & Figure 1). It would be obvious to one skilled in the art at the time the invention was made to combine Kosugi with the combine system of Kail, Nakamura, Steen, Sandelman and Halpern because having more then one or two sensors would make a system gather information from different locations at a faster pace then having one sensor having to electronically relocate to a different section of the system to gather information about the system, therefore making the system more efficient.

Response to Arguments

36. Applicant's arguments filed 12/15/2003 have been fully considered but they are not persuasive.

37. In the remarks, Applicant argues in substance that Kail does not disclose transmitting a command to a sensor and transmitting a reportable specification message form a sensor that is disclosed in claim 1.

38. As to part 1, Examiner would like to draw the attention of the Applicant to the above rejection that is restated for their convenience.

39. When reviewing a reference the applicants should remember that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection. In re Preda, 401 F. 2d 825, 159 USPQ 342 (CCPA 1968) and In re Shepard, 319 F. 2d 194, 138 USPQ 148 (CCPA 1963). Skill in the art is presumed. In re Sovish, 769 F. 2d 738, 226 USPQ 771 (Fed. Cir. 1985). Furthermore, artisans must be presumed to know something about the art apart from what the references disclose. In re Jacoby, 309 F. 2d 513, 135 USPQ 317 (CCPA 1962). The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969). Every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein. In re Bode, 550 F. 2d 656, 193 USPQ 12 (CCPA 1977).

40. Furthermore, Kail teaches transmitting a command to a sensor, (e.g. col. 7, line 60 – col. 8, line 28), more specifically, "If the call instead requested data from one of the sensors 28, the microprocessor signals the sensor. Upon receipt of the requested data from the sensor, a formatted message containing the data is prepared and transmitted." It is very apparent that a request is a type of command.

41. The specification of the application states that a "reportable specification" is, "the type of data that will be provide by the first sensor", "The "Reportable Specification" message may provide information regarding data type, range, frequency, and distribution..." There is no such statement that says what "reportable specification" specifically is, only what it "may provide".

Furthermore, all data can be classified as a "type" of data, it would be obvious that the prior art would transmit a "type" of data. If the sensors didn't send a "type" of data the system would not be able to understand what is being read from the sensors. Also, Applicant stated that the "portable monitoring unit 12, once initialized, does not send any signals to the server. Instead, it simply waits for the sensors 28 to send data." Examiner would like to point out that only in the first and second section of claim 1 talks about initializing the connection. The other three sections starting with the word "transmitting", in claim 1, say nothing about it being part of the initializing steps or is part of an initializing routine.

42. If applicant wishes to overcome this rejection there would have to be changes to what specifically is being read from the sensors in the specification and the claims and that the last three sections of claim 1 is part of one big initializing step. This would require further search and consideration.

43. In the remarks, Applicant argues in substance that Kosugi does not teach the limitations of claim 2, more specifically the transmitting of an acknowledgement of a reportable specification message.

44. As to part 2, Examiner would like to draw the Applicant's attention to the above explanation of "reportable specification". Using the same sections pointed out in the Applicant's specification, Kosugi teaches transmitting an acknowledgement of a reportable specification. Noting that the "reportable specification" is not clearly defined as to what specifically it is and/or it is a "type of data", Kosugi teaches transmitting of an ACK with a mode switching request.

This section that is restated in the rejection above, reads on the claim language as stated by the Applicant.

45. If applicant wishes to overcome this rejection there would have to be changes to what specifically is being read from the sensors in the specification and the claims.

46. In the remarks, Applicant argues in substance that Sandelman does not disclose transmitting an alarm table to a sensor and the type of Alarm Table that provides alarm identification numbers and a description of each alarm.

47. As to part 3, Examiner would like to draw the Applicant's attention to the claim language of the Applicant's disclosed invention. There is no claim language of the above claims that states what is specifically in the table or what the specific function of the specific content of the table. Furthermore, information about the table and its sending to the interface unit directly connected to the sensor is found also in col. 10, lines 14 – 59.

48. If applicant wishes to overcome this rejection there would have to be changes in the claim that specifically states the information that the table supports and the function of those information in the table. Doing so will overcome the reference but would require further search and consideration.

49. In the remarks, Applicant argues in substance that Halpern does not disclose the transmitting of time and initialization data and transmitting this information to a sensor.

50. As to part 4, Examiner would like to draw the Applicant's attention to the areas of Halpern cols. 11 and 12 and Fig. 1. In these areas it is interpreted that from the processors to the sensors is considered one device, the processor acting as a type of interface unit for the sensors, and the host computer is considered the second. In this interpretation, Halpern does teach the time and initialization data is transmitted to and from both devices as claimed.

51. In the remarks, Applicant argues in substance that Halpern does not disclose transmitting a process related command to a sensor.

52. As to part 5, Examiner would like to draw the Applicant's attention to the discloses answers to the Applicants remarks above, for they all fall under part 5 of the response to the remarks and is therefore stated that Halpern teaches transmitting a process related command to a sensor.

53. Claims 6 – 9 are still rejected for reasons stated above and therefore the rejection on claims 1 – 9 still stand.

Conclusion

54. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 703-305-5333. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 703-308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England
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De

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